

U.S. ENVIRONMENTAL PROTECTION AGENCY  
 POLLUTION/SITUATION REPORT  
 HOVENSA DCU Vapor Release - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 Region II

**Subject:** POLREP #5  
 HOVENSA DCU Vapor Release  
 ZZ  
 Christiansted, VI  
 Latitude: 17.7078390 Longitude: -64.7466520

**To:**  
**From:** D'Onofrio, On Scene Coordinator  
**Date:** 1/10/2011  
**Reporting Period:** 1/4/11 - 1/10/11

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	A263	<b>Contract Number:</b>	NA
<b>D.O. Number:</b>	NA	<b>Action Memo Date:</b>	
<b>Response Authority:</b>	CERCLA	<b>Response Type:</b>	Emergency
<b>Response Lead:</b>	PRP	<b>Incident Category:</b>	Removal Action
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	NA
<b>Mobilization Date:</b>	12/10/2010	<b>Start Date:</b>	12/9/2010
<b>Demob Date:</b>		<b>Completion Date:</b>	
<b>CERCLIS ID:</b>	VID980536080	<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	Yes
<b>FPN#:</b>		<b>Reimbursable Account #:</b>	

#### 1.1.1 Incident Category

Emergency Response

#### 1.1.2 Site Description

Release of vaporized coker intermediate to the atmosphere. Fallout from the release impacted cars, structural surfaces and potentially residential cisterns.

##### 1.1.2.1 Location

1 Estate Hope  
 Christiansted, St Croix, US Virgin Islands

##### 1.1.2.2 Description of Threat

Coker residue fallout potentially impacting residential cisterns.

#### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Approximately 220 homes/other structures, including one school, one daycare and several businesses affected by the release.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

##### 2.1.2 Response Actions to Date

EPA continues oversight of response activities with the VIDPNR, VIDOH. Two members of the USCG Atlantic Strike Team (AST) continue to assist EPA in oversight of HOVENSA operations. HOVENSA continues its efforts in conducting the following activities:

- cleaning of roofs and other structures/surfaces as required;
- reconnection of cisterns upon completion of roof cleaning;
- issuance of car vouchers for cleaning of impacted vehicles;
- drinking water distribution; and
- continuation of public outreach.

See SITREPs 1 and 2 for additional information.

Cris D'Onofrio (OSC) resumed field oversight responsibilities as of 1/5/11.

##### 2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The potentially responsible party (PRP) is HOVENSA. EPA issued a Field Notice of Federal Interest to HOVENSA on 12/15/10 to inform them of the intent for cost recovery.

##### 2.1.4 Progress Metrics

EPA cistern confirmatory samples were shipped to ERT/SERAS for analysis; HOVENSA samples were shipped to Louisiana State University (LSU) for analysis. Data is currently undergoing validation. Results are currently expected on or around January 14, 2011.

To date, the following work has been reported:

344 residences contacted in and near the impact zone.

292 roofs inspected; 226 confirmed impacted; 225 cleaned or addressed through claims, 1 remains to be cleaned or addressed through claims.

172 of 186 downspouts reconnected; 12 have refused reconnection.

24 roof coatings required due to receiving damage to coating during cleaning; 23 completed; one postponed on 1/7/11 due to forecast of rain.

10,658 gallons of water distributed at established distribution points; 446 gallons distributed on 1/7/11.

123 total calls received at the call center; no new calls reported on 1/7/11.

218 car wash vouchers have been distributed; 143 cars cleaned; HOVENSA is working to rectify their data base reflecting car wash numbers and separate residents from Estate Blessing.

4 cisterns cleaned to date; all due to impact from roof cleaning run-off.

## 2.2 Planning Section

### 2.2.1 Anticipated Activities

Evaluate analytical results from cistern water samples to determine the requirement for cistern cleaning operations.

#### 2.2.1.1 Planned Response Activities

Unified Command is developing a plan for transition to a Project Team for cistern cleaning if needed. A plan was submitted for demobilization of water distribution sites.

#### 2.2.1.2 Next Steps

Determine the need to clean cisterns based on analytical results.

### 2.2.2 Issues

HOVENSA had another air release on 1/6/11 that was not related to the DCU Coker response effort. At approximately 1036 hours, acid gas containing a high concentration of hydrogen sulfide (H<sub>2</sub>S) was released from a faulty pipe at a refinery sulfur unit. HOVENSA emergency management personnel responded immediately to the incident to apply a heavy water curtain to control the release of vapors from the area. The EPA OSC responded to the area to observe operations by approximately 1100 hours and observed that the water curtain appeared to be highly effective at controlling the release. No visible vapors were observed to be escaping the water curtain. The water curtain was applied until the pipeline leak could be isolated; the all clear announcement was given at approximately 1300 hours.

The HOVENSA Rapid Air Monitoring team was mobilized by approximately 1145 hours to conduct air monitoring both inside the refinery and within the adjacent community downwind of the incident. The Team deployed an Area RAE suite and additional Multi-RAEs. No H<sub>2</sub>S was detected at the refinery fenceline nor within the community. The EPA OSC was able to directly observe the air monitoring results as they were received real time via the Area RAE computer monitor during the response. The EPA observations verified that no H<sub>2</sub>S was detected at H<sub>2</sub>S monitors placed close to and at the refinery fenceline.

EPA deployed the USCG Atlantic Strike Team (AST) to conduct air monitoring within the community in order to verify HOVENSA monitoring results during the response effort. AST personnel conducted air monitoring using Multi-RAEs throughout the downwind neighborhoods adjacent to the refinery. All readings obtained by the AST were non-detect for H<sub>2</sub>S. The AST personnel also reported that they did not observe any visible vapors nor did they detect any odors within the neighboring community. Air monitoring by EPA and HOVENSA personnel was continued until approximately 1400 hours.

In response to this release, the Commissioner of the VI DPNR, the Commissioner of VITEMA, DPNR Enforcement, and the EPA OSC met with the HOVENSA Chief Operations Officer to discuss the cause and impacts of the release. Both Commissioners and EPA expressed concern for the consecutive releases at the HOVENSA facility and were seeking assurance that HOVENSA will take the appropriate corrective actions to avoid future incidents.

As of 1/7/11, the cause of the H<sub>2</sub>S release was reported as a failure of a temporary pipe repair. An engineering root cause analysis of that failure is still under way and is expected to be completed within two weeks. This leak will also be repaired to get the unit back on-line as soon as possible. Until the unit is fully operational, exceedences of sulfur dioxide permit limits are expected; the repair is therefore being expedited. The sulfur unit is currently scheduled for major reconditioning in February 2011, at which time the temporary repair will be replaced with new piping and the unit will be reconditioned/upgraded as needed.

It should be noted that two EPA OSCs had conducted a preliminary inspection of the sulfur plant area on

1/5/11 in response to a permit exceedence for sulfur dioxide emissions that occurred on 1/4/11 from equipment in that part of the plant. During that assessment, corrosion was noted on piping and equipment located at the sulfur plant along with what appears to be other maintenance issues. Evidence of a sulfur leak was also noted at the sulfur recovery unit.

## **2.3 Logistics Section**

NA

## **2.4 Finance Section**

### **2.4.1 Narrative**

N/A

## **2.5 Other Command Staff**

### **2.5.1 Safety Officer**

All operations will conform to the following regulations:

Title 29, Part 1910 of the Code of Federal Regulations, *Occupational Safety and Health Standards* (with special attention to Section 120, *Hazardous Waste Operations and Emergency Response*)

Title 29, Part 1926 of the Code of Federal Regulations, *Safety and Health Regulations for Construction*

National Institute for Occupational Safety and Health / OSHA / USCG / EPA *Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities*

### **2.6 Liaison Officer**

N/A

### **2.7 Information Officer**

#### **2.7.1 Public Information Officer**

The EPA Public Affairs Division PAD is being regularly updated on response oversight efforts. A statement from the Regional Administrator was released on 12/15/10. Positive response was recieved from the press/community in regards to this statement and the EPA oversight effort.

#### **2.7.2 Community Involvement Coordinator**

VIDOH and VIDPNR, and HOVENSA are requesting to conduct a joint public meeting with EPA to explain analytical results from cistern samples, discuss the go/no go decision to clean cisterns (pending analytical results) and the potential health effects related to this incident. The meeting would tentatively be scheduled during the week of January 17, 2011 pending receipt of validated sampling data. PAD has been notified; the OSC in the field will coordinate PAD regarding the content, format and logistics of this meeting.

## **3. Participating Entities**

### **3.1 Unified Command**

HOVENSA

VI DPNR

VI TEMA

US EPA

### **3.2 Cooperating Agencies**

ATSDR has been contacted for assistance by DOH and EPA. ATSDR will be assisting as needed to evaluate the potential health effects via inhalation and ingestion pending constituent analysis of coker product samples.

## **4. Personnel On Site**

EPA OSCs	1
U.S. Coast Guard	2
HOVENSA	68 + (varies)
VI DPNR	1

VI DOH 1

**5. Definition of Terms**

N/A

**6. Additional sources of information**

**6.1 Internet location of additional information/report**

US Coast Guard - National Pollution Fund Center

<http://www.uscg.mil/npfc/default.asp>

US Environmental Protection Agency - Region 2

<http://www.epa.gov/Region2/>

**6.2 Reporting Schedule**

Weekly over long term; daily as needed.

**7. Situational Reference Materials**

N/A